

AIWA® SERVICE MANUAL

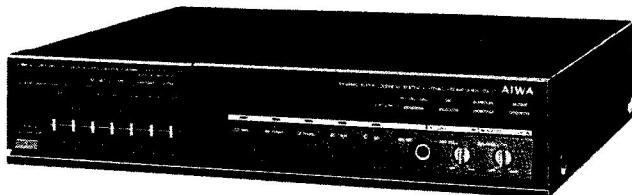
S/M Code No. 86-002

DATE OF ISSUE 2/1986-Z

STEREO PREAMPLIFTER

MODEL NO.

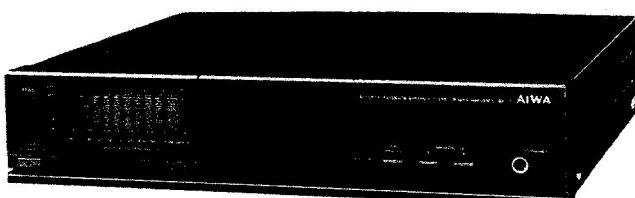
GX-770



STEREO POWER
AMPLIFTER

MODEL NO.

BX-770



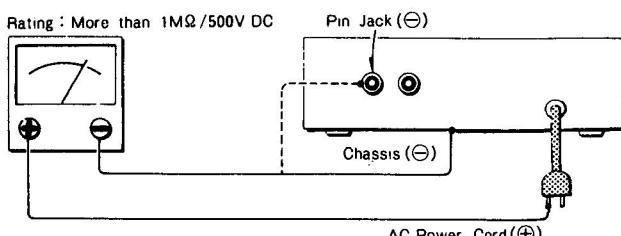
TYPE. HB, UB, EB, KB, ZB

Follow the instructions carefully, which will allow the user to optimise the products' performance and give many years of service.

1. No scratch and melting shall be made to covered lead-wires of an a.c. primary circuit including mains leads.
2. No illegibility shall be given to the specification plate, the caution labels, the fuse labels and others.
3. When, on pattern sides of circuit boards, additional repair-parts have been made up, the parts shall be firmly glued to circuit boards or other components, unless the parts can be attached firmly.
4. The following matters shall be maintained as they are, when repairing.
 - 1) Soldering of lead-wire ends
 - * Care should be taken of the space distance in an a.c. primary circuit as well as soldering.
 - 2) Wiring and holding of lead-wires with wire-clips and binders
 - 3) Materials of lead-wires
 - * e.g.: For UL models, lead-wires to be used shall be approved or accepted by the UL.
 - 4) Location of all kinds of insulators
 - 5) Setting of voltage selector switch
 - * Set the Voltage Selector Switch to 240V, 220V, or 120V, According to your Local Voltage.

5. After repaired, the insulation resistance or leakage current shall be measured with 500 ± 5V D.C and shall be not less than 1MΩ. Measuring Point

Connect to Chassis or Outside \ominus of Pin Jack



6. General instructions for mechanism repair
 - 1) E-rings and poly slider washers shall be replaced with new ones, if once those have been removed. — No re-utilization due to unreliability.
 - 2) Regular spare-parts shall always be used for repair, because using irregular parts and tampering with the products shall cause deterioration, malfunction and damage.

SPECIFICATIONS

GX-770

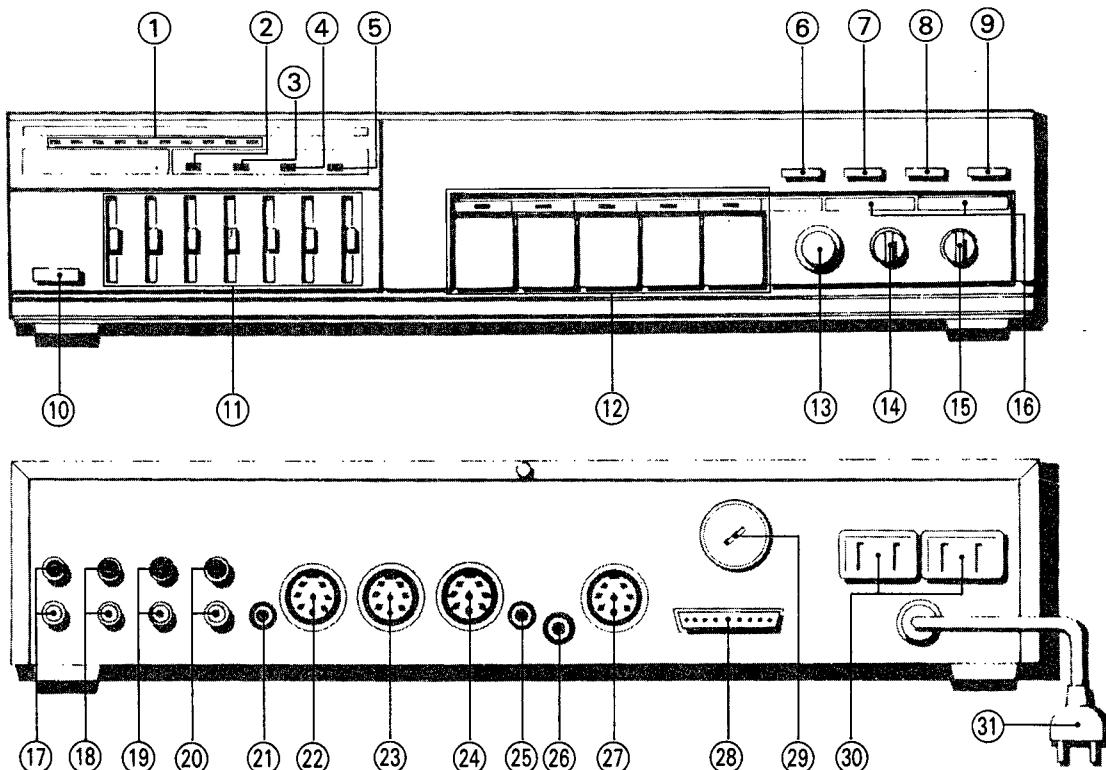
Total harmonic distortion:	TUNER, AUX, TAPE PLAY, CD 0.008% (1 kHz) PHONO (MM) 0.01% (1 kHz, REC OUT)	Output jacks (Level/output impedance):	TAPE: 150 mV/47k ohms (REC OUT) OUTPUT: 1 V/47k ohms
Frequency response:	20 Hz to 50 kHz (+0.5/-3 dB)	RIAA deviation:	340 mV/47k ohms ±0.5 dB (20 Hz~20 kHz)
S/N ratio:	IHF A curve short circuited GX-770E, H, K, U, PHONO (MM) 84 dB TUNER, AUX, TAPE 90 dB	Power requirements:	GX-770U, AC 120V, 60 Hz GX-770K AC 240V, 50/60 Hz
	GX-770Z PHONO (MM) 76 dB TUNER, AUX, TAPE 90 dB		GX-770H AC 120V/220V/240V switchable, 50/60 Hz
Input jacks (Sensitivity/input impedance):	PHONO (MM) 4 mV/47k ohms TUNER 170 mV/47k ohms CD 230 mV/27k ohms TAPE 170 mV/47k ohms AUX 170 mV/47k ohms MIC 1 mV/10k ohms	Power consumption:	GX-770E, Z AC 220V, 50/60 Hz GX-770E, K, Z, 10 W GX-770U 10 W GX-770H 10 W
		Dimensions:	330 (W) × 71 (H) × 307 (D) mm
		Weight:	2.3 kg

BX-770

Effective output power:	BX-770H 100W+100W (10%, 8 ohms) BX-770 E, K, Z, 75W+75W (0.02%, 1 kHz, 8 ohms) < FTC Rule U mode only > 75 Watts per channel, Min. RMS at 8 ohms, from 20 Hz—20 kHz, with no more than 0.02% Total Harmonic Distortion.	Damping Factor:	More than 30 (8 ohms, 1 kHz)
Total harmonic distortion:	0.01% (50W+50W, 20 Hz—20 kHz, 8 ohms)	Power requirements:	BX-770U AC 120V, 60 Hz BX-770K AC 240V 50/60 Hz
Frequency response:	10 Hz to 50 kHz (-1 dB)	BX-770H AC 120V/220V/240V switchable, 50/60 Hz	
S/N ratio:	IHF 110 dB, A curve short circuited	BX-770E, Z AC 220V, 50/60 Hz	
Input jacks (Sensitivity/ input impedance):	BX-770 1V/47k ohms	BX-770E, K, Z 350 W	
Output jacks (Level/ output impedance):	Headphones 1 mW/1 W (8Ω) Speakers (A or B) 8 to 16 ohms Speakers (A+B) 16 ohms	BX-770U 100 W	
		BX-770H 120W	
		Dimensions:	330 (W) × 71 (H) × 313 (D) mm
		Weight:	4.6 kg

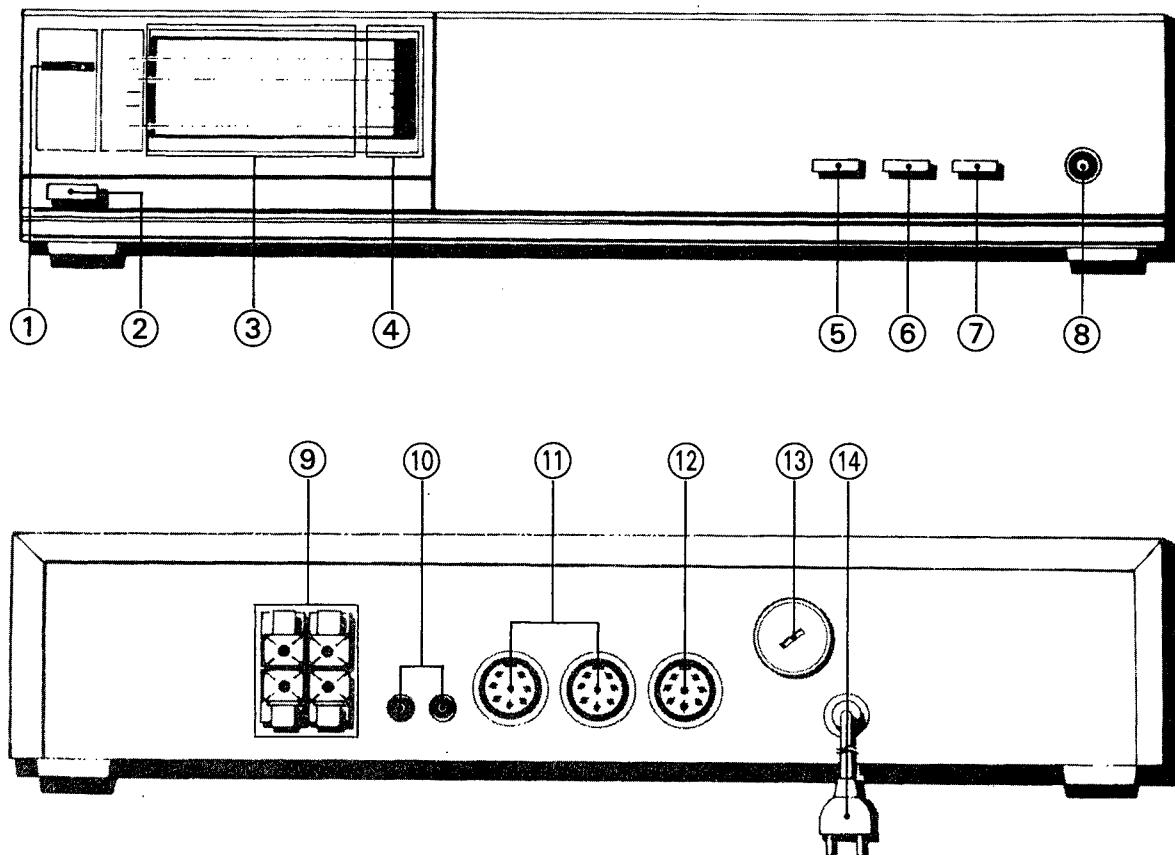
- Design and specifications are subject to change without notice.

NAMES OF PARTS AND THEIR FUNCTION (GX-770)



- 1. VOLUME INDICATOR**
Displays the volume.
- 2. REC OUT Indicator**
This indicator lights when the REC OUT button is "ON".
- 3. DSL Indicator**
This indicator lights when the DSL button is "ON".
- 4. SURROUND Indicator**
This indicator lights when the SURROUND button is "ON".
- 5. MUTING Indicator**
This indicator lights when the MUTING button is "ON".
- 6. REC OUT switch**
Turn this switch ON (the indicator will light) when you want the output signal to REC OUT to be adjustable with the equalizer. The switch should be OFF if you want the output to REC OUT to have a flat response; with no influence from the equalizer controls.
- 7. DSL ON/OFF button**
For turning ON/OFF the DSL circuit.
- 8. SURROUND button**
Switch this button "ON" when listening to the surround system with four speakers.
- 9. MUTING button**
Set the MUTING button to ON for decreasing the volume by 1/10th of the normal volume setting. This is convenient when answering the telephone, etc. Usually keep the button set in the OFF position.
- 10. POWER button**
For switching the power ON/OFF (STANDBY).
- 11. GRAPHIC EQUALIZER controls**
Adjust the tone for the desired response.
- 12. Function buttons and function indicator**
Press the appropriate button to select the desired music source.
The indicator corresponding to the depressed button turns on.
- 13. MIX MIC jack**
Plug the microphones into this jack for sound mixing or for recording music while you sing along.
- 14. MIC VOL control knob**
For volume control from the mixing microphone.
- 15. BALANCE control knob**
For balancing right and left speaker sound.
- 16. VOLUME button**
- 17. PHONO jack**
These jacks are connected to connect to the output plugs of the turntable system.
- 18. Compact disk jacks (CD)**
These jacks are connected to a compact disk player.
- 19. Auxiliary input jacks (AUX)**
These jacks are connected to the output cords of external components.
- 20. REC OUT jack (REC OUT)**
These output jacks permit connection, when recording, to an external component such as a VCR.
- 21. PHONO SYNC jack**
This jack connects to the turntable synchronization cable.
- 22. Tape REC/PLAY jack**
This jack is connected to the REC/PLAY jack of the deck.
- 23. Tape CONTROL jack**
This jack is connected to the CONTROL jack of the deck.
- 24. TUNER jack**
This jack is connected to the OUTPUT jack of the tuner.
- 25. CD synchro-recording jack (CD SYNC)**
Jack for connection to the synchro-recording jack (DECK SYNC) on the AIWA compact disc player.
- 26. VIDEO synchro-recording jack (VIDEO SYNC)**
Jack for connection to the SYNCHRO FUNCTION jack on the AIWA AV-70M video cassette recorder.
- 27. Output jack (OUTPUT)**
This jack is connected to the INPUT jack of the power amplifier.
- 28. Remote control jack (REMOTE)**
Jack for wireless remote control of the AIWA 7000 series system.
- 29. AC VOLTAGE selector switch (H model only)**
- 30. AC OUTLETS**
Supply power for the BX-770 power amplifier and the DX-770 compact disc player.
- 31. AC cord**
Supplies power to the unit.

NAMES OF PARTS AND THEIR FUNCTION (BX-770)



1. **AFBS Indicator**
When the AFBS button is "ON" this indicator lights.
2. **POWER button**
For switching the power ON/OFF (STANDBY).
3. **Spectrum Analyzer display**
Displays the input signal level by dividing it into 7 frequency bandwidths.
* The input signal amplitude is displayed independently of the volume, however the display changes when the Graphic Equalizer is used.
* This display lights only when this unit is used with the GX-770 preamplifier. In other combinations, the display does not light.
4. **POWER OUTPUT Indicator (POWER INDICATOR)**
This display amplifier output levels.
5. **AFBS button**
When this button is ON, the base notes of the A speakers (AIWA SX-E77) are emphasized.
6. **SPEAKERS A switch**
When pressed in, turns on the speakers connected to the A speaker terminals.
7. **SPEAKERS B switch**
When pressed in, turns on the speakers connected to the B speaker terminals.
8. **PHONES jack**
Jack for the connection of headphones.
When listening with headphones and without sound from the speakers, switch both SPEAKER buttons A and B OFF.
9. **SPEAKERS B terminals**
Connection terminals for right and left speakers of system B.
10. **Speaker jacks for surround system use (SPEAKERS)**
When listening to the surround system, connect the rear speakers to this jack.
11. **SPEAKERS A terminals**
Connection jacks for right and left speakers of system A.
12. **INPUT jacks**
Cords from these terminals should be connected to the OUTPUT jacks on the preamplifier unit.
13. **AC VOLTAGE selector switch (H model only)**
14. **AC cord**
Supplies power to the unit.

ELECTRICAL MAIN PARTS LIST (GX-770)
ELECTRICAL M.

- +++ mark denotes a component of assembled part which part code is represented by a previously stated component.
- *-mark means less required items and availabilities may be limited.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	
--- IC --														
87-027-350	IC,IR2406G	D22 87-020-110 DIODE 1SS177	C1 ★ 87-015-684 CAP,ELECT 47-16	△C97 ★ 87-019-110 SPARK KILLER 0.01	---	IC	---							
87-020-547	IC,LB1292	D23 87-020-110 DIODE 1SS177	C2 ★ 87-015-684 CAP,ELECT 47-16	△F1 ★ 87-035-139 FUSE T2.5A (E,Z ONLY)										
87-020-604	IC,M4051BP	D24 87-020-110 DIODE 1SS177	C3 ★ 87-015-698 CAP,ELECT 4.7-50	△J17 ★ 87-049-017 AC OUTLET (AC OUTLETS)(H ONLY)	87-020									
87-027-895	IC,M5218L	D25 87-020-110 DIODE 1SS177	C4 ★ 87-015-698 CAP,ELECT 4.7-50	△J17 ★ 87-049-070 AC OUTLET (AC OUTLETS)(U ONLY)	87-020									
87-027-925	IC,M5220	D31 87-020-110 DIODE 1SS177	C5 ★ 87-018-040 CAP,CERA-SOL S 470P	△J17 ★ 87-049-514 AC OUTLET (AC OUTLETS)(E,Z ONLY)	87-020									
87-020-546	IC,M5229P	D32 87-020-110 DIODE 1SS177	C6 ★ 87-018-040 CAP,CERA-SOL S 470P	△J17 ★ 87-049-416 AC OUTLET (AC OUTLETS)(K ONLY)	87-020									
87-020-619	IC,M5238L	D33 87-020-110 DIODE 1SS177	C7 ★ 87-018-037 CAP,CERA-SOL S 270P	△J18 ★ 87-049-017 AC OUTLET (AC OUTLETS)(H ONLY)	87-020									
87-020-379	IC,MN6632	D34 87-020-110 DIODE 1SS177	C8 ★ 87-018-037 CAP,CERA-SOL S 270P	△J18 ★ 87-049-070 AC OUTLET (AC OUTLETS)(U ONLY)	87-020									
87-027-986	IC,NJM4560S	D35 87-020-110 DIODE 1SS177	C11 ★ 87-018-042 CAP,CERA-SOL S 680P	△J18 ★ 87-049-514 AC OUTLET (AC OUTLETS)(E,Z ONLY)	87-027									
87-027-989	IC,TC4027BP	D36 87-020-110 DIODE 1SS177	C12 ★ 87-018-042 CAP,CERA-SOL S 680P	△J18 ★ 87-049-416 AC OUTLET (AC OUTLETS)(K ONLY)	87-027									
87-027-656	IC,TC4066BP	D37 87-020-110 DIODE 1SS177	C15 ★ 87-018-045 CAP,CERA-SOL 2200P	---	VOL.SELECTOR CIRCUIT BOARD SECTION (H ONLY) ---	87-027								
87-027-978	IC,TC9152P	D38 87-020-110 DIODE 1SS177	C16 ★ 87-018-045 CAP,CERA-SOL 2200P	PCB-D * VOL.SELECTOR CIRCUIT BOARD	87-027									
87-027-554	IC,UPD4066BC	D40 87-020-110 DIODE 1SS177	C19 ★ 87-018-046 CAP,CERA-SOL S 0.0047	△AS1 * 87-031-551 ROTARY SW(VOLTAGE SELECTOR)(H ONLY)										
		D41 87-020-364 DIODE,ZENER HZ-2B3	C20 ★ 87-018-046 CAP,CERA-SOL S 0.0047	---	MISCELLANEOUS ---									
		D42 87-020-110 DIODE 1SS177	C21 ★ 87-015-692 CAP,ELECT 0.22-50V		TRANSISTOR ---									
		D43 87-020-110 DIODE 1SS177	C22 ★ 87-015-692 CAP,ELECT 0.22-50V											
		D44 87-020-110 DIODE 1SS177	C25 ★ 87-015-694 CAP,ELECT 0.47-50V	△ ★ 87-034-992 AC CORD (H ONLY)	89-503									
		D45 87-020-110 DIODE 1SS177	C26 ★ 87-015-694 CAP,ELECT 0.47-50V	△ ★ 87-034-994 AC CORD (U ONLY)	89-110									
		D46 87-020-110 DIODE 1SS177	C29 ★ 87-015-693 CAP,ELECT 0.33-50	△ ★ 82-788-674 AC CORD (E,Z ONLY)	89-110									
		D47 87-027-393 DIODE,ZENER HZ4C2	C30 ★ 87-015-693 CAP,ELECT 0.33-50	△ ★ 87-034-708 AC CORD (K ONLY)	89-111									
		D49 87-027-431 DIODE,ZENER RD-6.2EB	C31 ★ 87-015-695 CAP,ELECT 1-50	△ ★ 87-085-184 AC CORD BUSHING (H ONLY)	89-206									
		D50 87-020-110 DIODE 1SS177	C32 ★ 87-015-695 CAP,ELECT 1-50	△ ★ 87-085-189 AC CORD BUSHING (U ONLY)	89-318									
		D51 87-020-110 DIODE 1SS177	C35 ★ 87-015-698 CAP,ELECT 4.7-50	△ ★ 87-085-185 AC CORD BUSHING (E,K,G ONLY)	89-318									
		D52 87-027-606 DIODE,ZENER HZ7C2L	C36 ★ 87-015-698 CAP,ELECT 4.7-50	APT1 ★ 81-766-606 POWER TRANSFORMER (H ONLY)	89-320									
		D54 87-020-110 DIODE 1SS177	C37 ★ 87-015-691 CAP,ELECT 0.1-50	APT1 ★ 81-766-607 POWER TRANSFORMER (U ONLY)	89-326									
		D55 87-027-555 DIODE,ZENER HZ5C2	D1 87-020-110 DIODE 1SS177	APT1 ★ 81-766-608 POWER TRANSFORMER (E,Z ONLY)	89-326									
		D56 87-027-475 DIODE,ZENER HZ-6B1	D2 87-020-110 DIODE 1SS177	APT1 ★ 81-766-609 POWER TRANSFORMER (K ONLY)	89-333									
		D57 87-027-475 DIODE,ZENER HZ-6B1	D3 87-020-110 DIODE 1SS177		89-407									
		D58 87-020-110 DIODE 1SS177	D4 87-020-110 DIODE 1SS177		89-412									
		D59 87-020-110 DIODE 1SS177	D5 87-020-110 DIODE 1SS177		89-413									
		D60 87-020-110 DIODE 1SS177	LED1 87-020-556 LED TLG205 (TAPE)											
		D61 87-020-110 DIODE 1SS177	LED2 87-020-556 LED TLG205 (TUNER)											
		D62 87-020-110 DIODE 1SS177	LED3 87-020-556 LED TLG205 (PHONO)											
		D63 87-020-110 DIODE 1SS177	LED4 87-020-556 LED TLG205 (AUX)											
		D64 87-020-110 DIODE 1SS177	LED5 87-020-556 LED TLG205 (CD)											
		D65 87-027-475 DIODE,ZENER HZ-6B1	LED6 87-027-679 LED,TLR208 (REC OUT-G.EQ.)											
		D66 87-027-393 DIODE,ZENER HZ4C2	LED7 87-027-679 LED,TLR208 (DSL)											
		D67 87-020-110 DIODE 1SS177	LED8 87-027-679 LED,TLR208 (SURROUND)											
		D68 87-027-475 DIODE,ZENER HZ-6B1	LED9 87-027-679 LED,TLR208 (MUTING)											
		D69 87-027-431 DIODE,ZENER RD-6.2E	LED10 87-020-550 LED TLG208-5 (VOLUME INDICATOR)											
		D70 87-020-400 DIODE 1SR35-200	LED11 87-020-550 LED TLG208-5 (VOLUME INDICATOR)											
		D71 87-027-376 DIODE 1B4B41	SW1 87-031-771 TACT SW (TAPE)											
		D72 87-027-555 DIODE,ZENER HZ5C2	SW2 87-031-771 TACT SW (TUNER)											
		D73 87-020-110 DIODE 1SS177	SW3 87-031-771 TACT SW (PHONO)											
		D75 87-020-110 DIODE 1SS177	SW4 87-031-771 TACT SW (AUX)											
		J1 87-049-420 PIN JACK 4P-14 (PHONO) L	SW5 87-031-771 TACT SW (CD)											
		J2 +++ PIN JACK 4P-14 (PHONO) R	SW6 81-750-625 PUSH SW 4 KEYS (REC OUT-G.EQ.)											
		J3 +++ PIN JACK 4P-14 (CD) L	SW7 81-750-625 PUSH SW 4 KEYS (DSL)											
		J4 +++ PIN JACK 4P-14 (CD) R	SW8 81-750-625 PUSH SW 4 KEYS (SURROUND)											
		J5 87-049-450 PIN JACK,4P (AUX) L	SW9 81-750-625 PUSH SW 4 KEYS (MUTING)											
		J6 +++ PIN JACK,4P (AUX) R	SW10 87-031-897 PUSH SW (POWER)											
		J7 +++ PIN JACK,4P (REC OUT-G.EQ.) L	SW11 87-031-771 TACT SW (VOLUME UP)											
		J8 +++ PIN JACK,4P (REC OUT-G.EQ.) R	SW12 87-031-771 TACT SW (VOLUME DOWN)											

ELECTRICAL MAIN PARTS LIST (BX-770)

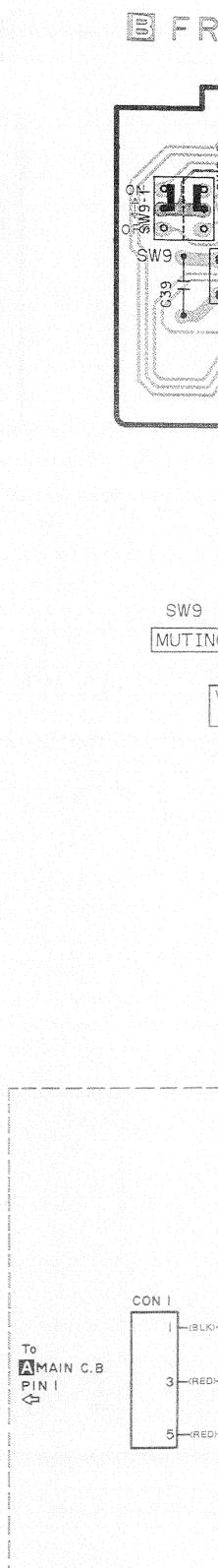
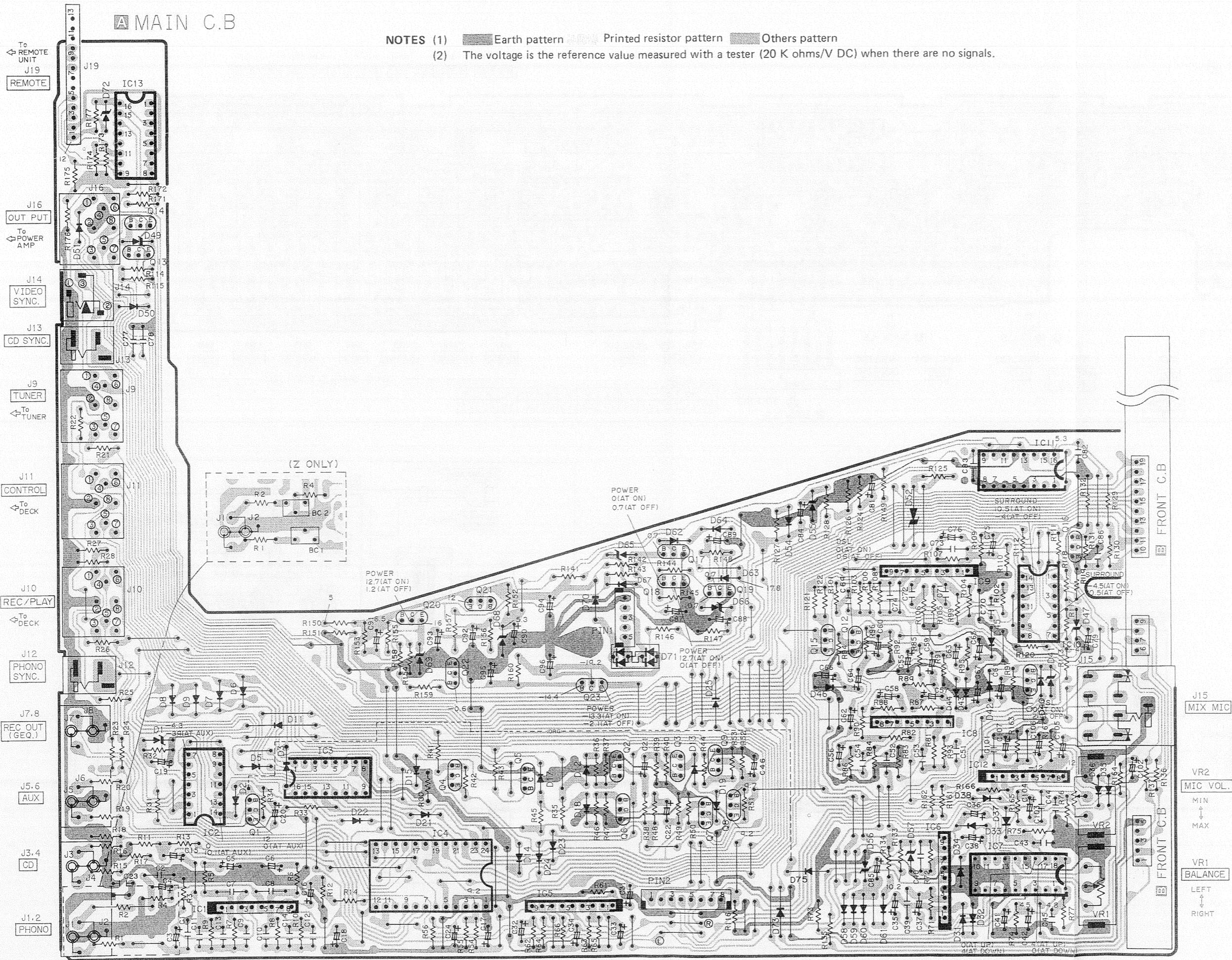
- +++ mark denotes a component of assembled part which part code is represented by a previously stated component.
- ★ -mark means less required items and availabilities may be limited.

CAPACITORS	COILS	FUSE
No mark, U, UF: μ F P, PF : pF	MMH: mH : pF	MMA: mA UH : μ H

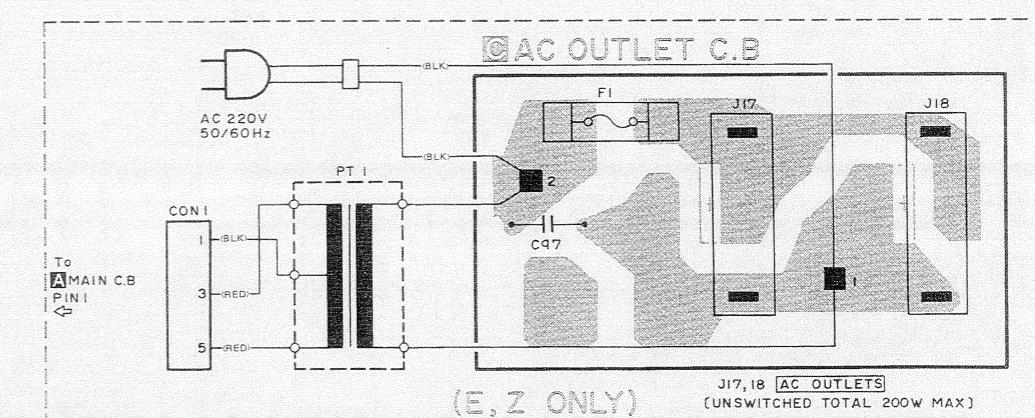
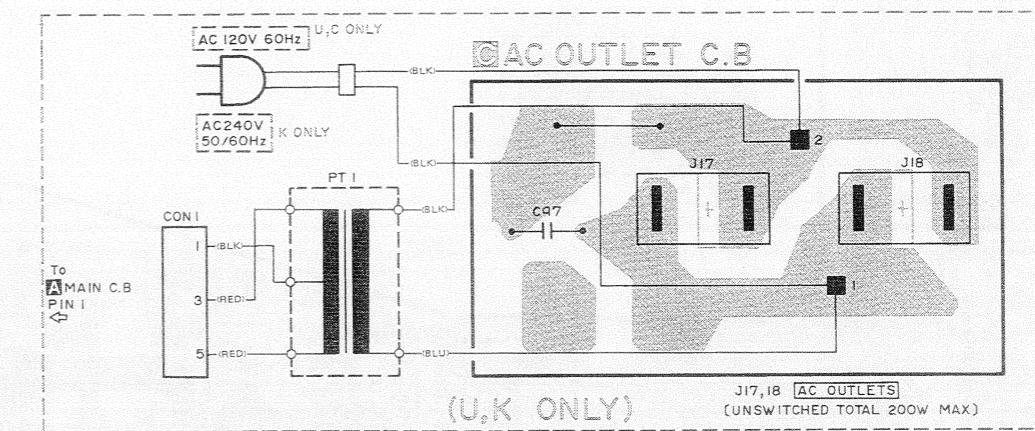
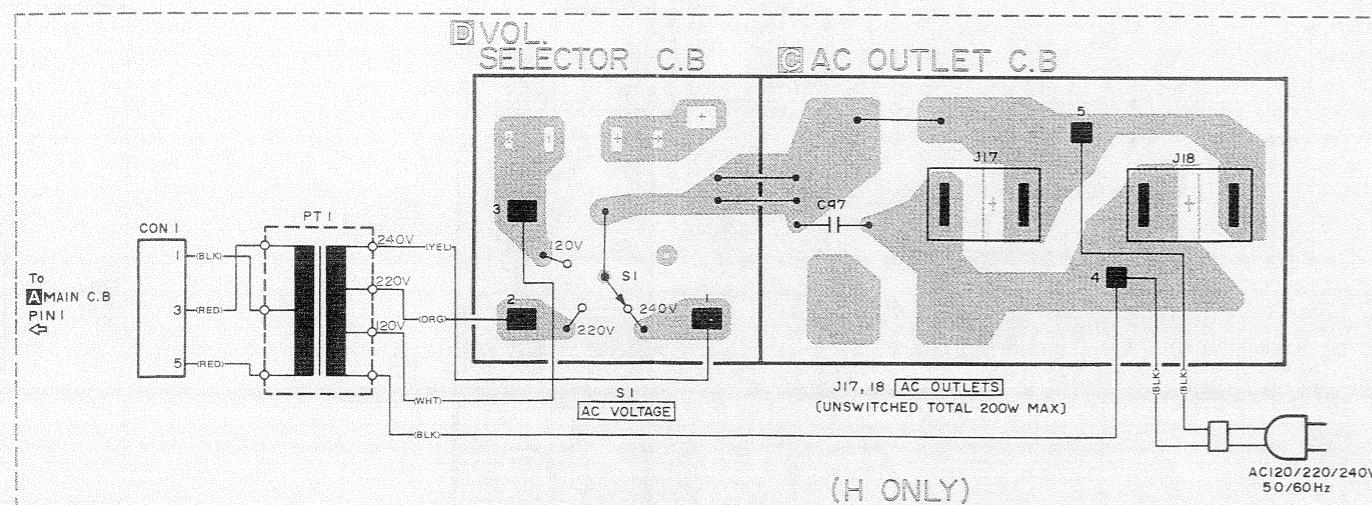
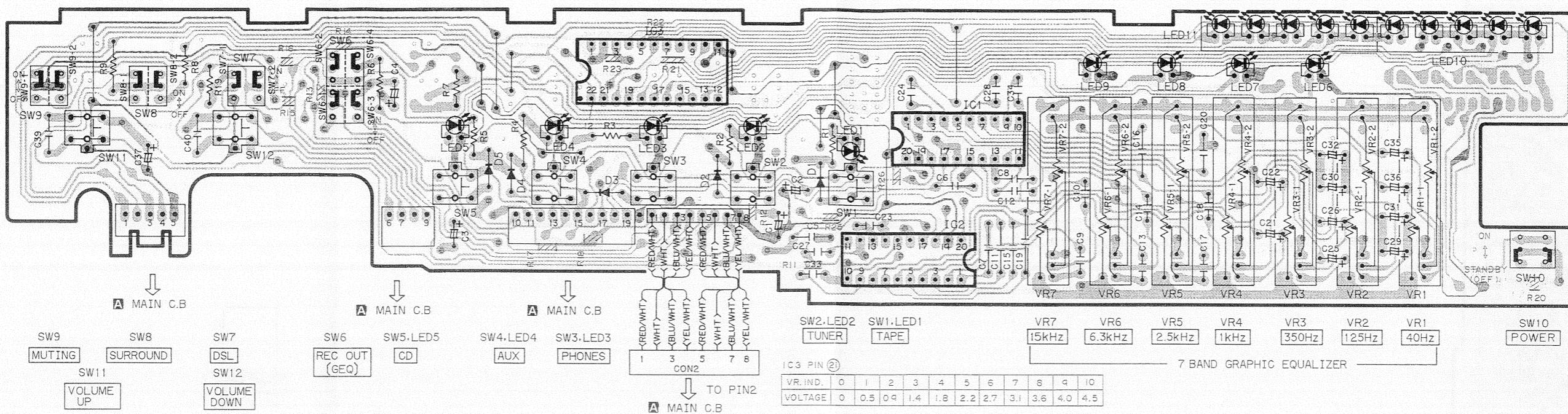
on	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
Y) TS)(H ONLY) TS)(U ONLY)	87-020-431	IC,BA658	---	D21	87-020-110	DIODE 1SS177	C211	★ 87-015-694	CAP,ELECT 0.47-50V	△R14	★ 87-029-029	RES,FUSIBLE,1/4W-68 (EXCEPT H)
TS)(E,Z ONLY)	87-020-429	IC,LB1290	---	D25	87-020-110	DIODE 1SS177	C214	★ 87-015-694	CAP,ELECT 2.2-50	R42	★ 87-025-368	RES,MF 1.2K (EXCEPT H)
TS)(K ONLY)	87-020-547	IC,LB1292	---	D26	87-020-110	DIODE 1SS177	C215	★ 87-015-694	CAP,ELECT 0.47-50V	△R44	★ 87-029-112	RES,FUSIBLE 1/4W-330
TS)(H ONLY)	87-020-633	IC,M4052 BP	---	D27	87-020-400	DIODE 1SR35-200	C218	★ 87-015-694	CAP,ELECT 2.2-50	△SFR2	★ 87-021-856	SFR 100
TS)(K ONLY)	87-020-548	IC,M5228P	---	D28	87-020-400	DIODE 1SR35-200	C219	★ 87-015-694	CAP,ELECT 0.47-50V	---	---	---
TS)(U ONLY)	87-027-235	IC,NJM4558D	---	D29	87-020-110	DIODE 1SS177	C220	★ 87-018-041	CAP,CERA-SOL S 560P	PCB-D	*	FUSE CIRCUIT BOARD
TS)(E,Z ONLY)	87-020-549	IC,STK1070A	---	D30	87-020-110	DIODE 1SS177	C221	★ 87-018-041	CAP,CERA-SOL S 560P	△F3	* 87-033-147	FUSE CLAMP
TS)(K ONLY)	87-027-298	IC,TC4001 BP	---	D31	87-027-555	DIODE,ZENER HZ5C2	C222	★ 87-015-694	CAP,ELECT 2.2-50	△F3	87-035-303	FUSE 5A (U ONLY)
TS)(K ONLY)	87-020-207	IC,TC4022BP	---	D32	87-020-110	DIODE 1SS177	C223	★ 87-015-694	CAP,ELECT 0.47-50V	△F3	87-035-365	FUSE T2A (E,K,Z ONLY)
H ONLY) ---	87-027-656	IC,TC4066BP	---	D33	87-020-110	DIODE 1SS177	C224	★ 87-018-037	CAP,CERA-SOL S 270P	---	---	---
H ONLY) ---	87-027-787	IC,UPC1237H	---	D34	87-020-110	DIODE 1SS177	C225	★ 87-018-037	CAP,CERA-SOL S 270P	---	---	---
T BOARD SELECTOR)(H ONLY)			---	D35	87-020-110	DIODE 1SS177	C226	★ 87-015-694	CAP,ELECT 2.2-50	---	---	---
---			---	D36	87-020-110	DIODE 1SS177	C227	★ 87-015-694	CAP,ELECT 0.47-50V	PCB-E	*	VOLTAGE SW CIRCUIT BOARD
---			---	D37	87-020-400	DIODE 1SR35-200	C229	★ 87-015-691	CAP,ELECT 0.1-50	△F3	* 87-033-147	FUSE CLAMP
---			---	D38	87-027-479	DIODE,ZENER HZ27-2	C230	★ 87-015-694	CAP,ELECT 0.47-50V	△F3	87-035-312	FUSE 7A
---			---	D39	87-020-144	DIODE DBA4DC	C231	★ 87-015-682	CAP,ELECT 22-16	△F4	87-035-256	FUSE 3.15A
---			---	D40	87-027-788	DIODE D5FB20	C233	★ 87-015-682	CAP,ELECT 22-16	---	---	---
ONLY)	89-503-890	FET 2SK389	---	D41	87-020-110	DIODE 1SS177	C250	★ 87-015-682	CAP,ELECT 22-16	△SW5	87-031-551	ROTARY SW (VOLTAGE SELECTOR)
ONLY)	89-110-155	TRANSISTOR,2SA1015,GR	---	D70	87-020-110	DIODE 1SS177	C252	★ 87-018-137	CAP,CERA-SOL S 3300P	---	---	---
K,G ONLY)	89-110-203	TRANSISTOR,2SA1020,D	---	D71	87-020-400	DIODE 1SR35-200	C254	★ 87-015-682	CAP,ELECT 22-16	---	---	---
H ONLY)	89-111-246	TRANSISTOR,2SA1124 R	---	△F1	87-035-258	FUSE 5A (H ONLY)	C255	★ 87-015-682	CAP,ELECT 22-16	△	87-034-992	AC CORD (H ONLY)
ONLY)	89-206-882	TRANSISTOR,2SB688	---	△F1	87-035-302	FUSE 4A (U ONLY)	C256	★ 87-018-044	CAP,CERA-SOL S 1000P	△	87-034-578	AC CORD (U ONLY)
K,G ONLY)	89-318-156	TRANSISTOR,2SC1815,BL	---	△F1	87-035-367	FUSE T3.15A (E,K,Z ONLY)	C288	★ 87-015-694	CAP,ELECT 2.2-50	△	87-034-877	AC CORD (E,Z ONLY)
H ONLY)	89-318-154	TRANSISTOR,2SC1815,Y	---	△F2	87-035-258	FUSE 5A (H ONLY)	D51	87-020-110	DIODE 1SS177	△	87-034-708	AC CORD (K ONLY)
U ONLY)	89-320-011	TRANSISTOR,2SC2001K	---	△F2	87-035-302	FUSE 4A (U ONLY)	D52	87-020-110	DIODE 1SS177	△	87-085-184	AC CORD BUSHING
E,Z ONLY)	89-326-326	TRANSISTOR,2SC2632 R	---	△F2	87-035-367	FUSE T3.15A (E,K,Z ONLY)	D53	87-020-110	DIODE 1SS177	△PT	81-751-606	TRANSFORMER PT (H ONLY)
K ONLY)	89-326-553	TRANSISTOR,2SC2655,0	---	J2	81-738-630	JACK PLATE ASSY (AFBS R)	D54	87-020-110	DIODE 1SS177	△PT	81-751-607	TRANSFORMER PT (U ONLY)
U ONLY)	89-333-810	TRANSISTOR,2SC3381	---	J3	81-738-630	JACK PLATE ASSY (AFBS L)	D55	87-020-110	DIODE 1SS177	△PT	81-751-608	TRANSFORMER PT (E,Z ONLY)
E,Z ONLY)	89-407-182	TRANSISTOR,2SD718	---	J4	87-049-360	JACK 6.3 S (HEADPHONE)	D56	87-020-110	DIODE 1SS177	△PT	81-751-609	TRANSFORMER PT (K ONLY)
indicated by an ed circuit board. If this becomes	89-412-753	TRANSISTOR,2SD1275	---	J5	87-049-507	JACK 3.5 (SURROUND SP L)	D57	87-020-110	DIODE 1SS177	---	---	---
re to maintain inform to special component with signed part.	89-413-023	TRANSISTOR,2SD1302S	---	J6	87-049-507	JACK 3.5 (SURROUND SP R)	D58	87-020-110	DIODE 1SS177	---	---	---
amage by static ollowing articles. in a metallic box nsportation and	L1	★ 87-005-158	INDUCTOR 1 UH	D60	87-020-110	DIODE 1SS177	Combination circuit board 81-751-610					
60°C) of power at more than 10 er, etc. Refer to	PCB-A	*	MAIN CIRCUIT BOARD	D61	87-020-110	DIODE 1SS177	PCB-A 81-751-611					
er, etc. Refer to	PCB-A	★ 87-033-147	FUSE CLAMP	D62	★ 87-027-679	LED,TLR208 (AFBS-SPEAKER A)	PCB-C 81-751-612					
er, etc. Refer to	C3	★ 87-010-367	CAP,ELECT BP S4.7-25V	FL	81-738-640	FL,CP1057GR	PCB-D 81-751-613 (EXCEPT H)					
er, etc. Refer to	C5	★ 87-018-034	CAP,CERA-SOL S 150P	SW4	87-031-897	PUSH SW (POWER)	PCB-E 81-751-614 (H ONLY)					
er, etc. Refer to	C7	★ 87-018-037	CAP,CERA-SOL S 270P	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C9	★ 87-018-009	CAP,CERA-SOL S 10P	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C11	★ 87-018-098	CAP,TC SS 3.3P	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C13	★ 87-018-005	CAP,CERA-SOL S,4.7P	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C17	★ 87-018-042	CAP,CERA-SOL S 680P	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C18	★ 87-018-028	CAP,CERA-SOL 68P	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C86	★ 87-018-045	CAP,CERA-SOL 2200P	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C87	★ 87-015-450	CAP,ELECT 220-25V BP	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C158	★ 87-010-044	CAP,ELECT 47-50V(105)	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C159	★ 87-010-044	CAP,ELECT 47-50V(105)	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C160	★ 87-010-444	CAP,ELECT 22-50V(105)	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C180	★ 87-010-275	CAP,ELECT 56V-8200	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C181	★ 87-010-275	CAP,ELECT 56V-8200	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C182	★ 87-010-276	CAP,ELECT 56V-5600	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C183	★ 87-010-276	CAP,ELECT 56V-5600	---	---	---	---	---	---	---	---	---
er, etc. Refer to	C400	★ 87-018-047	CAP,CERA-SOL S 0.01Y/16	---	---	---	---	---	---	---	---	---
er, etc. Refer to	D1	87-027-469	DIODE,ZENER HZ16-2	---	---	---	---	---	---	---	---	---
er, etc. Refer to	D3	87-020-110	DIODE 1SS177	---	---	---	---	---	---	---	---	---
er, etc. Refer to	D5	87-027-469	DIODE,ZENER HZ16-2	---	---	---	---					

A MAIN C.B

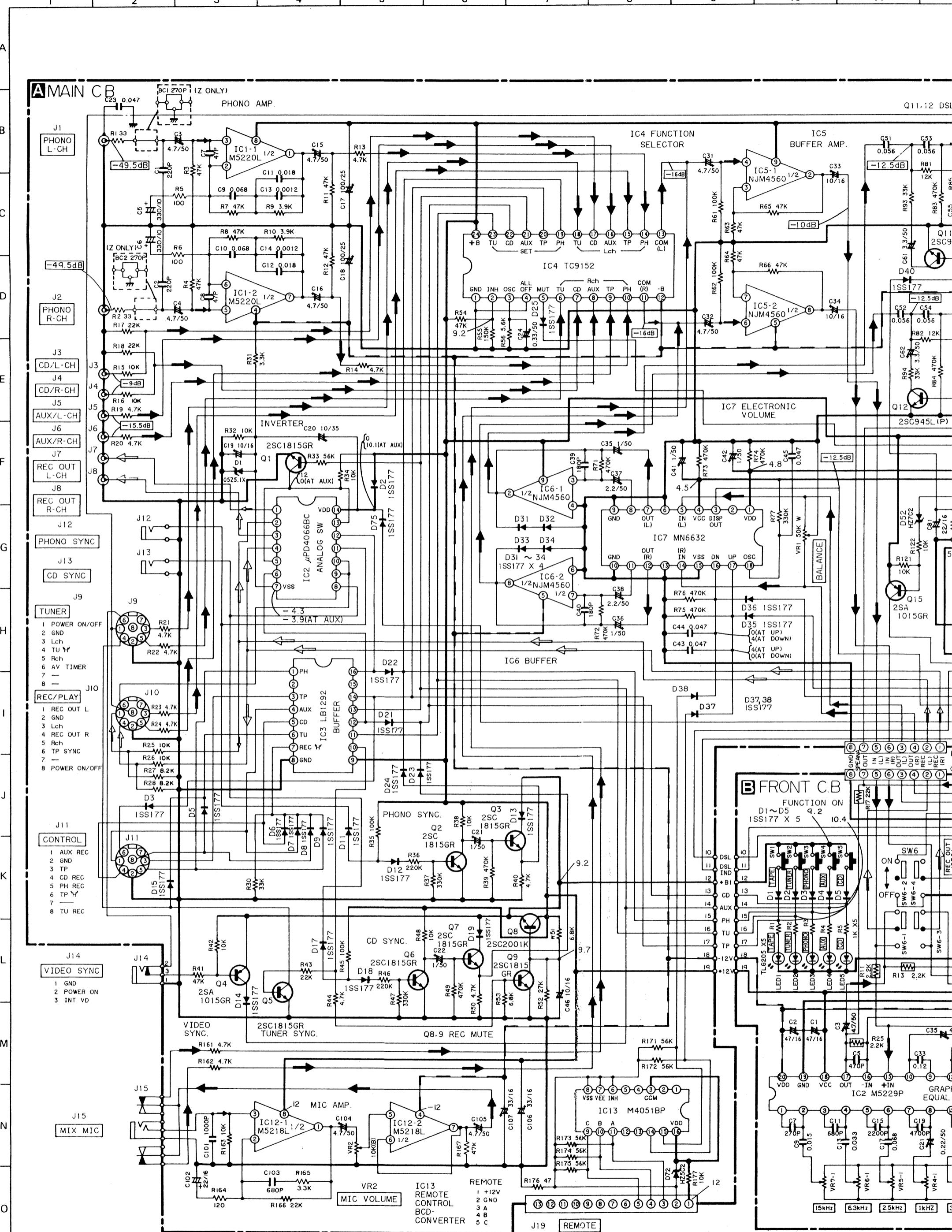
NOTES (1) Earth pattern Printed resistor pattern Others pattern
(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.

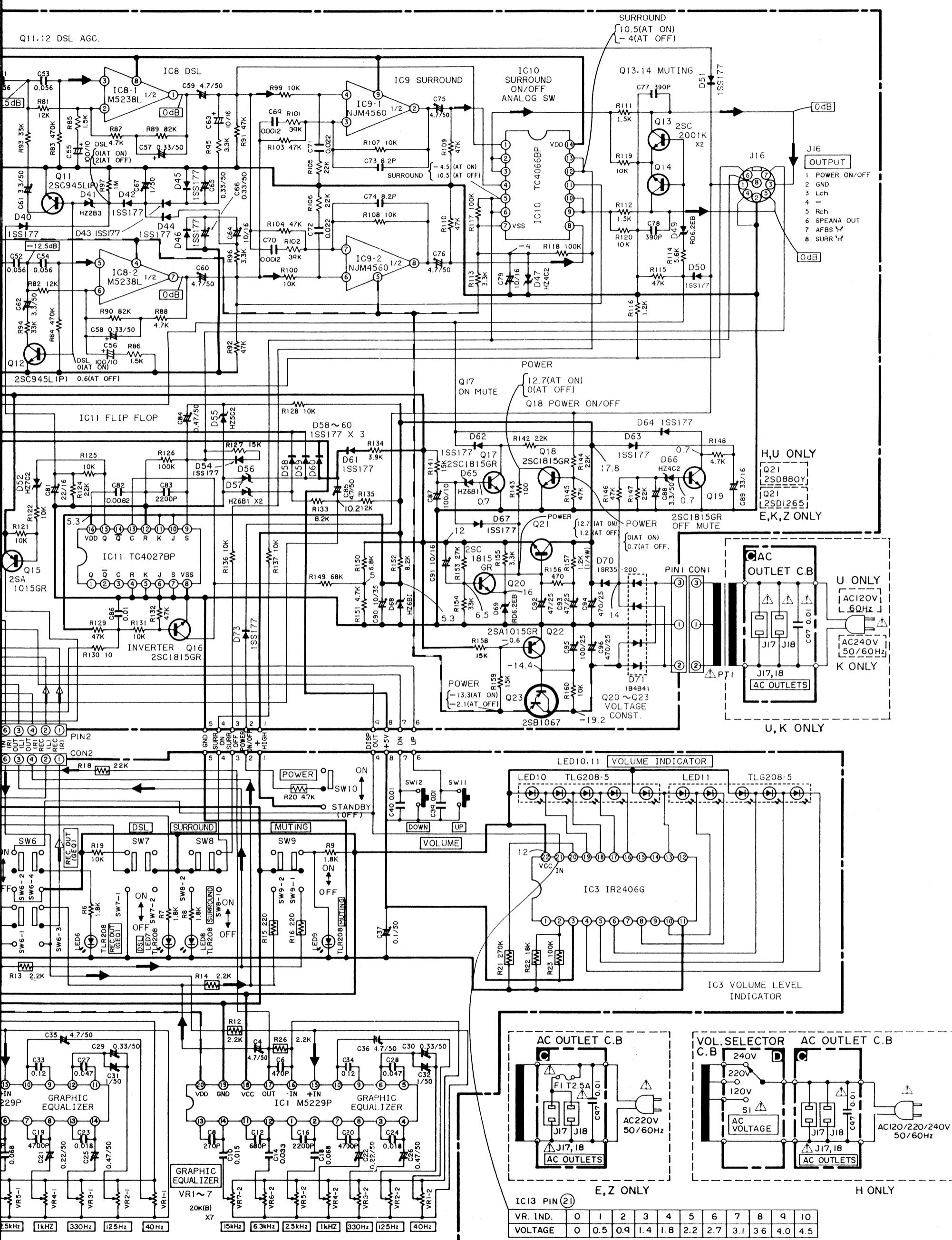


B FRONT C.B



SCHEMATIC DIAGRAM-1 (GX-770)





Safety component symbol

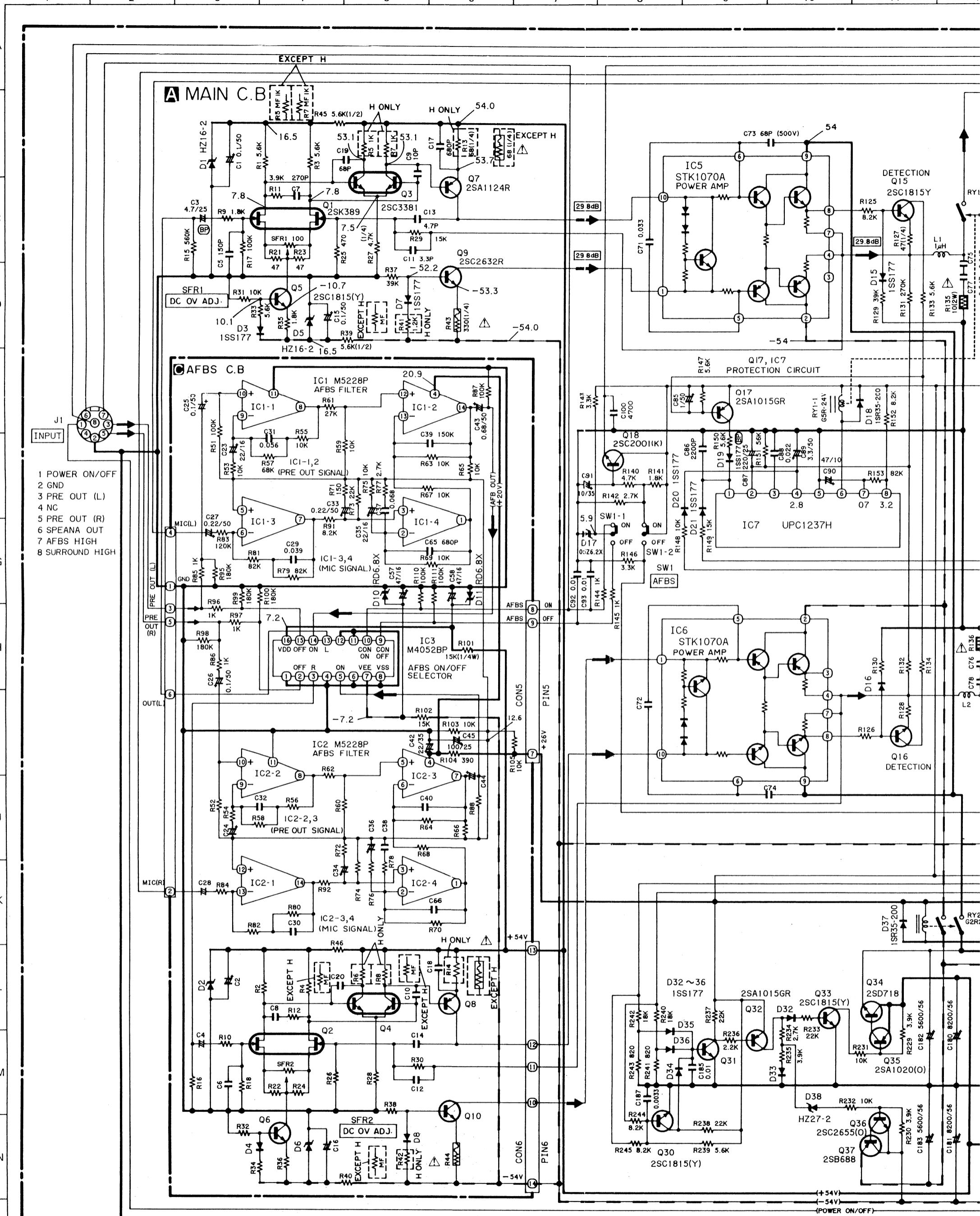
This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications.

Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

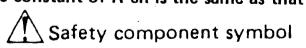
NOTES:

- 1) B (+) power supply
- 2) Signal path
- 3) Rec path

SCHEMATIC DIAGRAM-2 (BX-770)



Note: The constant of R-ch is the same as that of I-ch

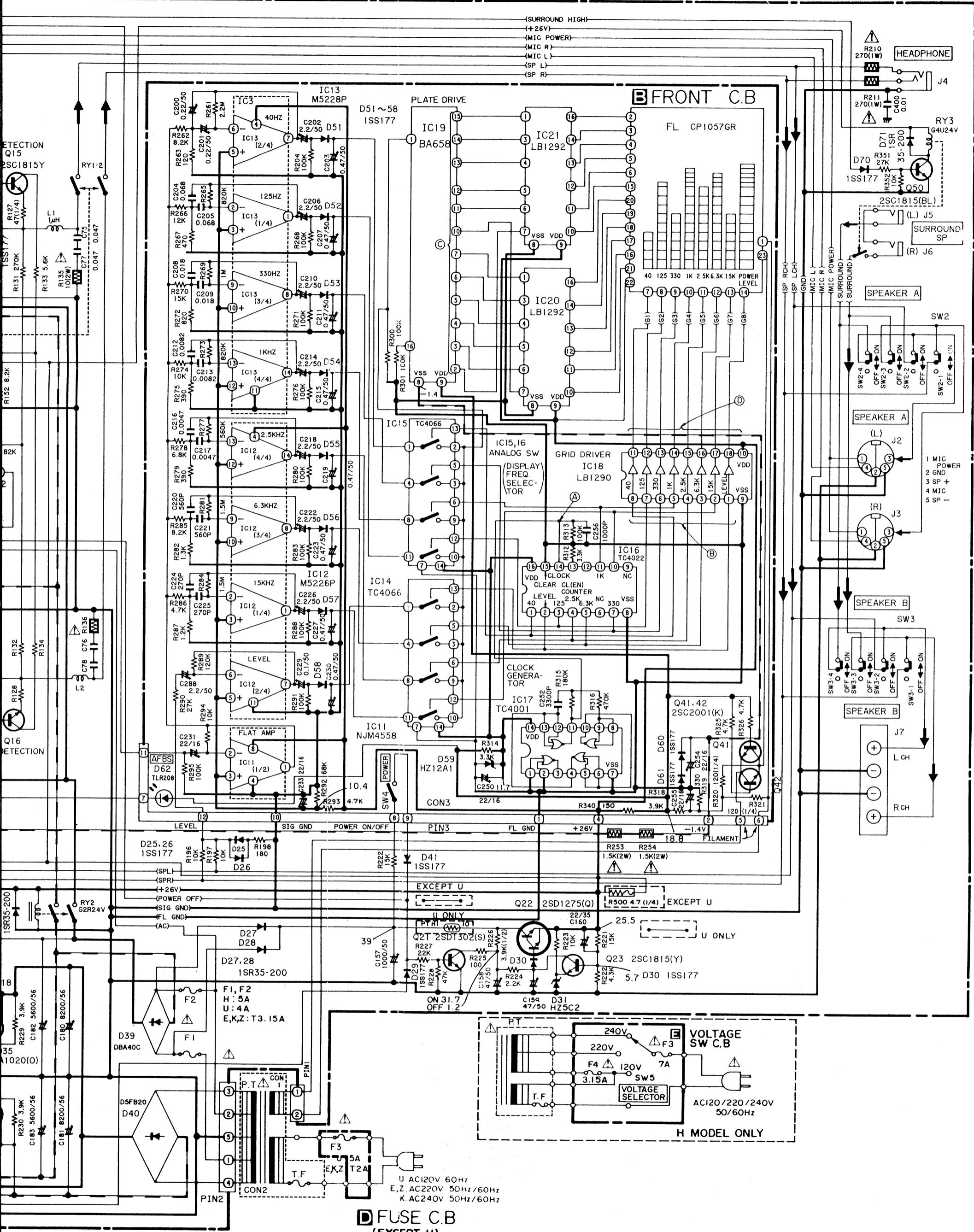


This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this

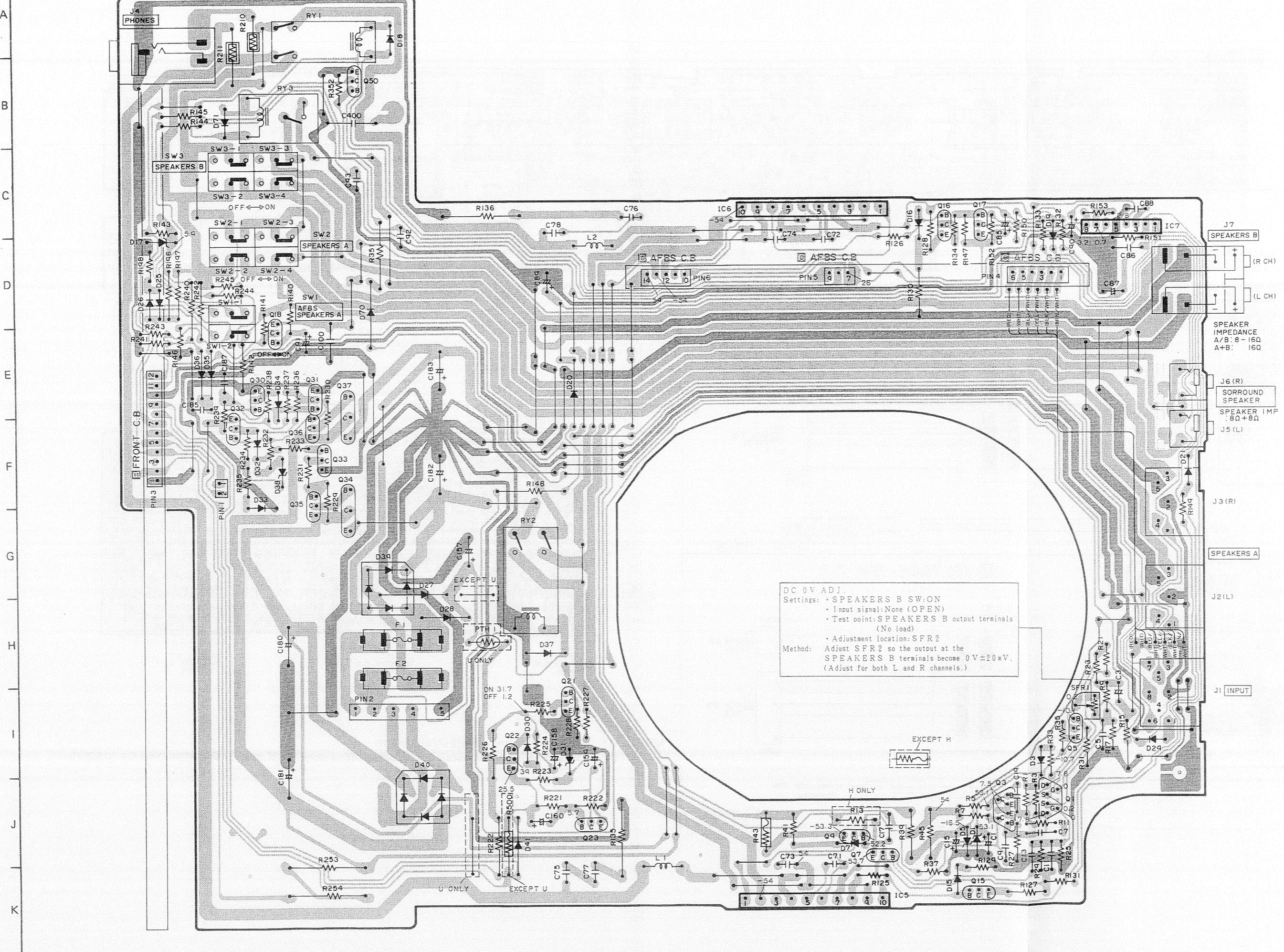
Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

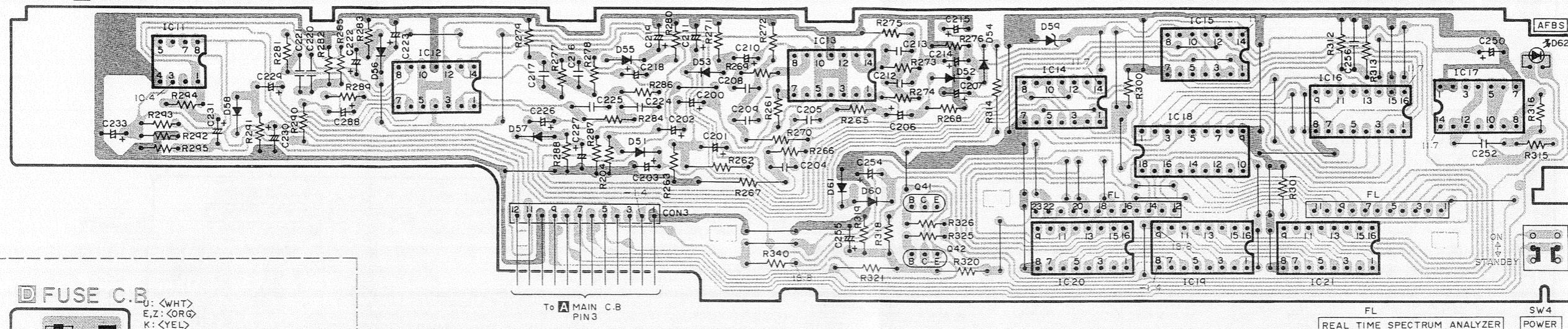
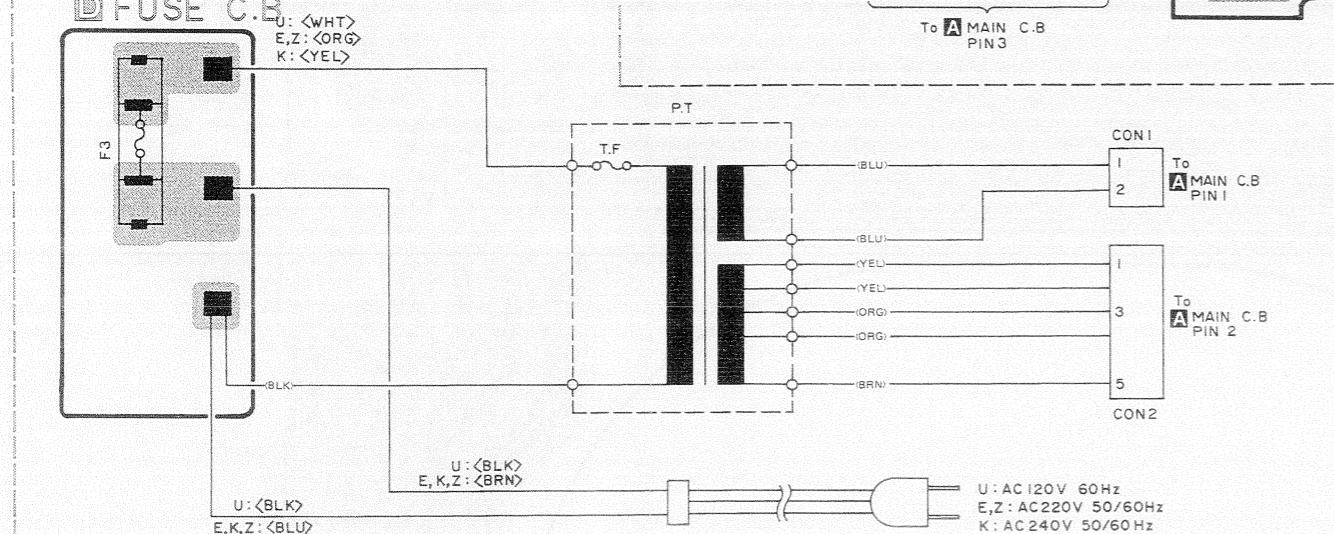
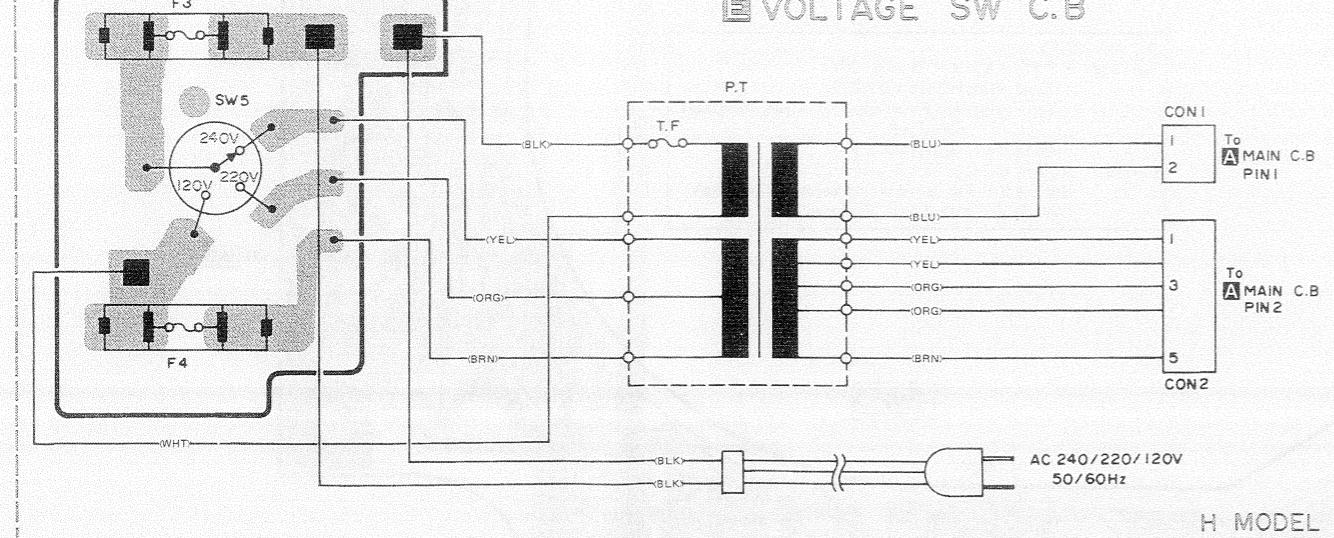
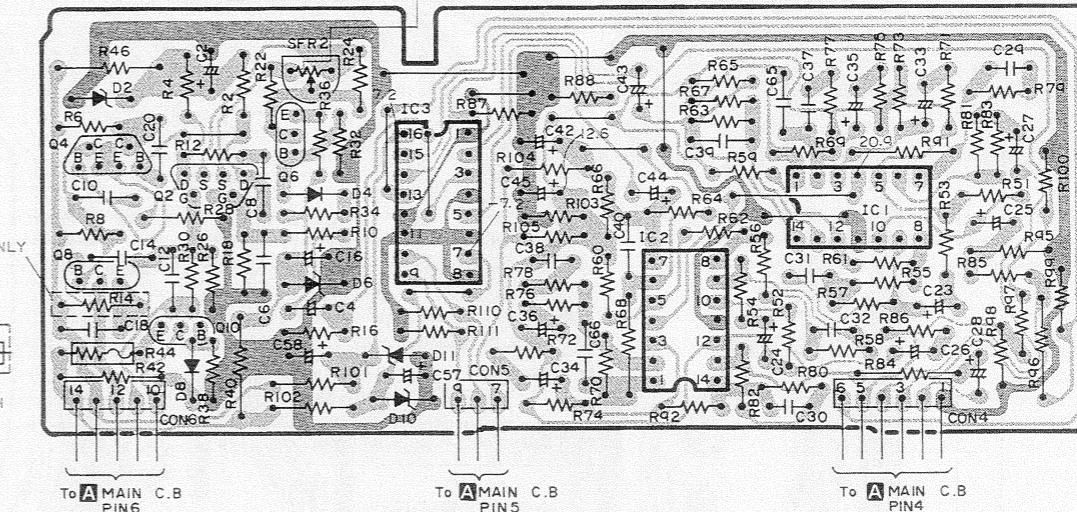
NOTES:

1) [] B (+) power supply
 2) → Signal path



A MAIN C.B

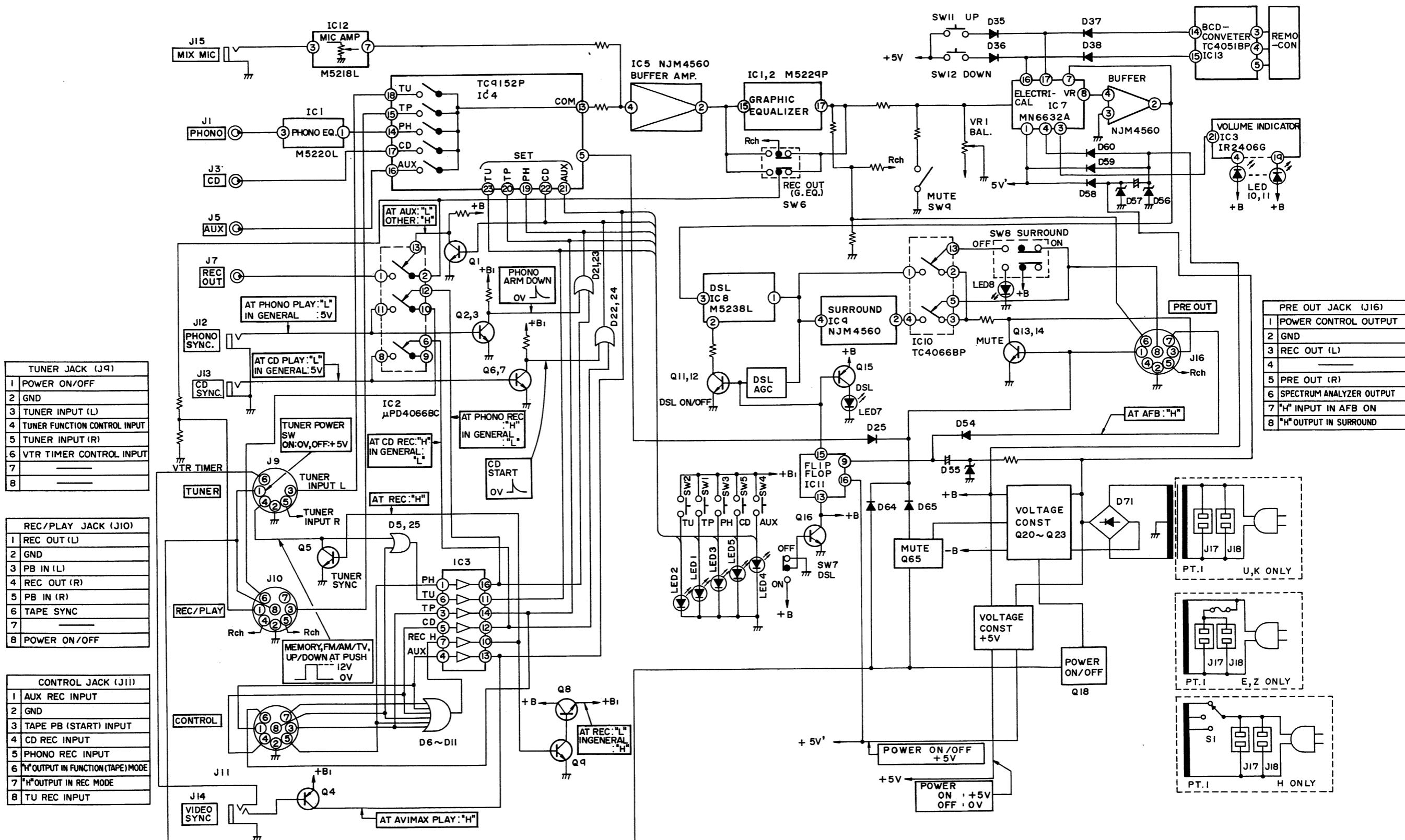


B FRONT C.B**D FUSE C.B****E VOLTAGE SW C.B****C AFBS C.B**

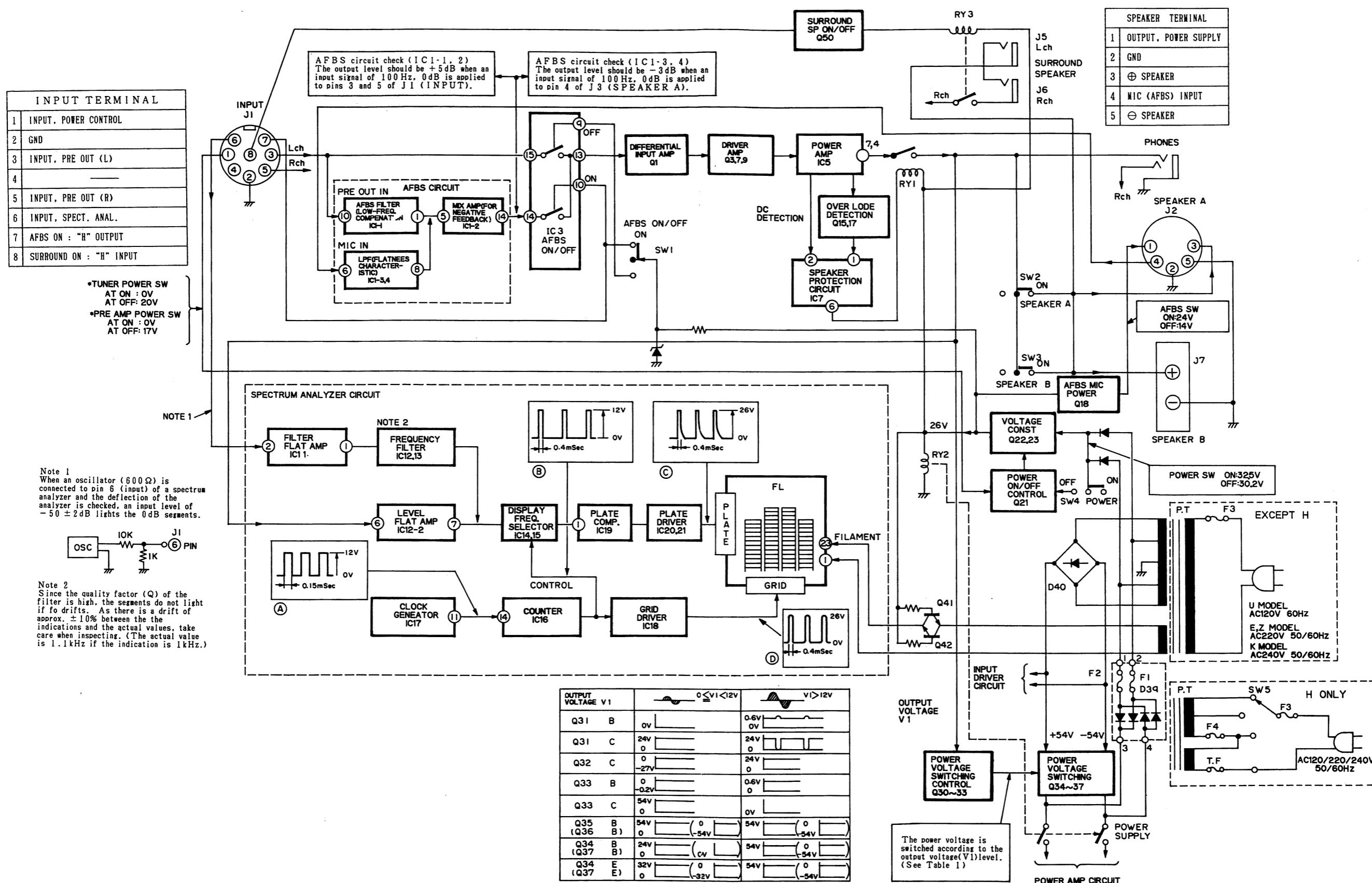
NOTES (1) ■ Earth pattern ■ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.

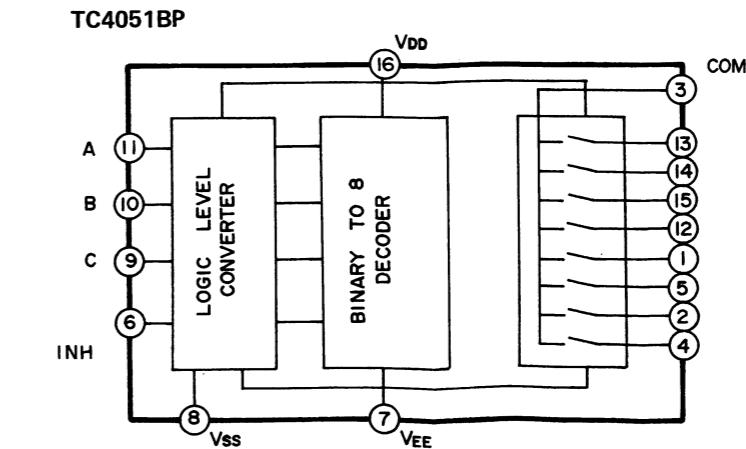
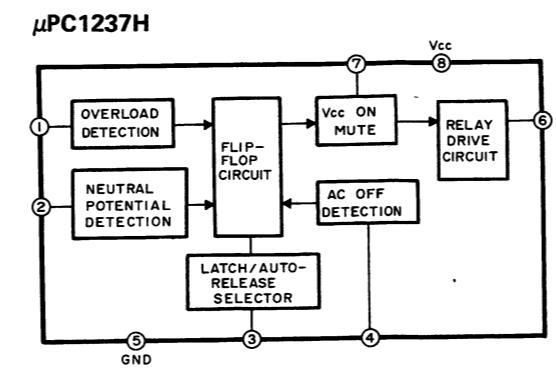
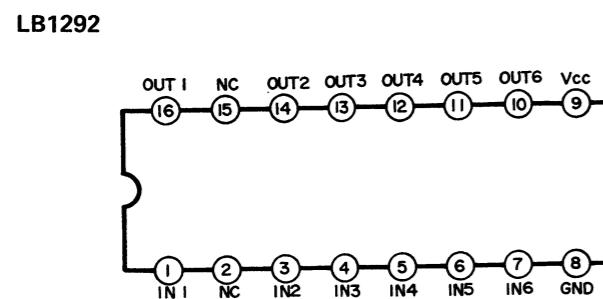
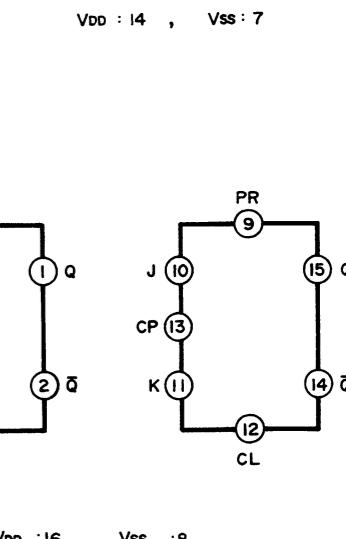
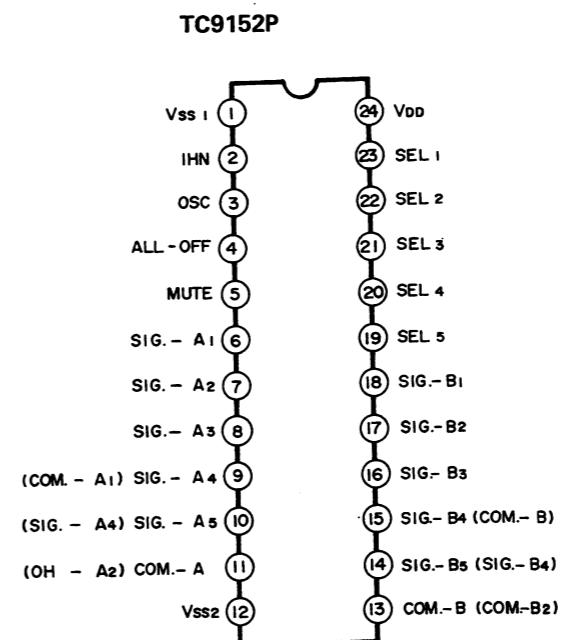
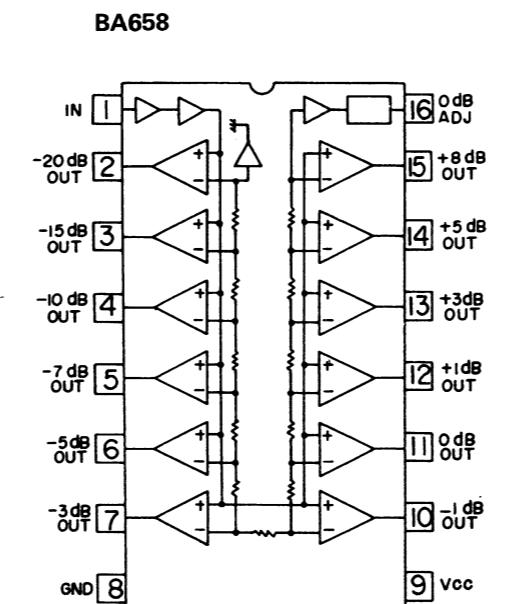
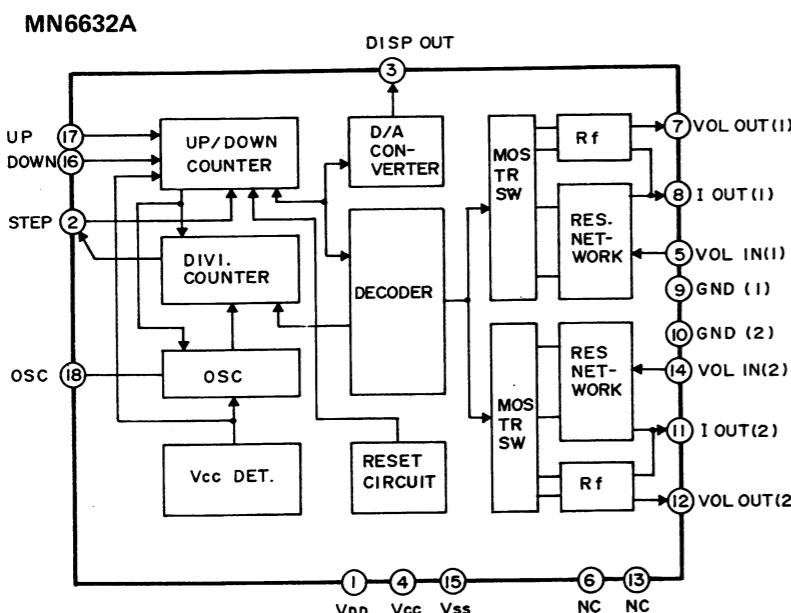
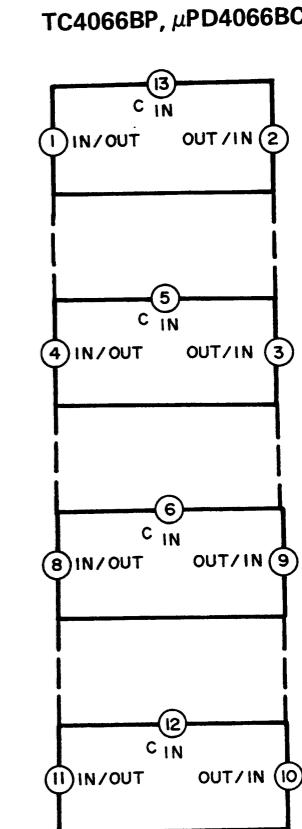
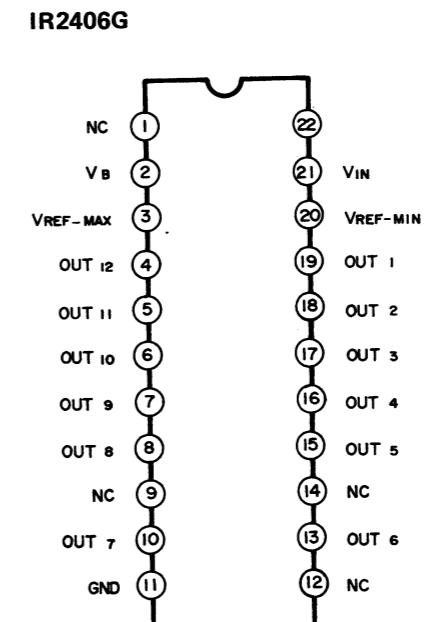
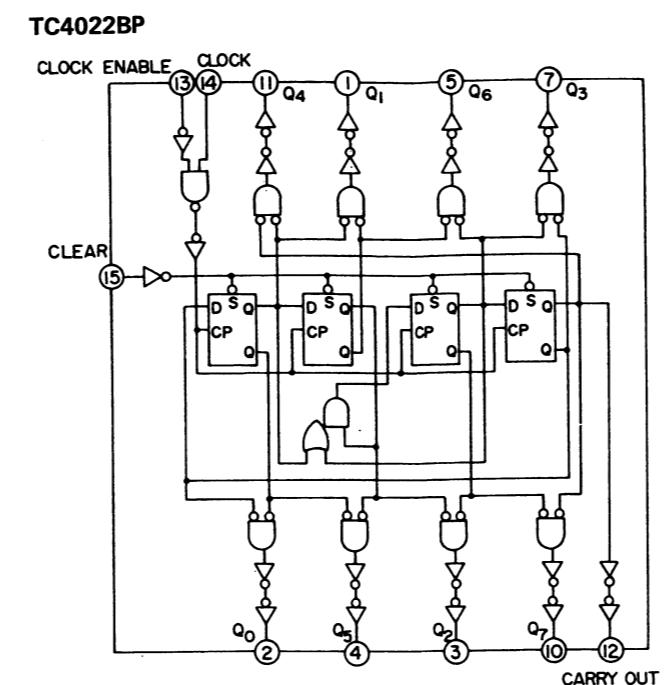
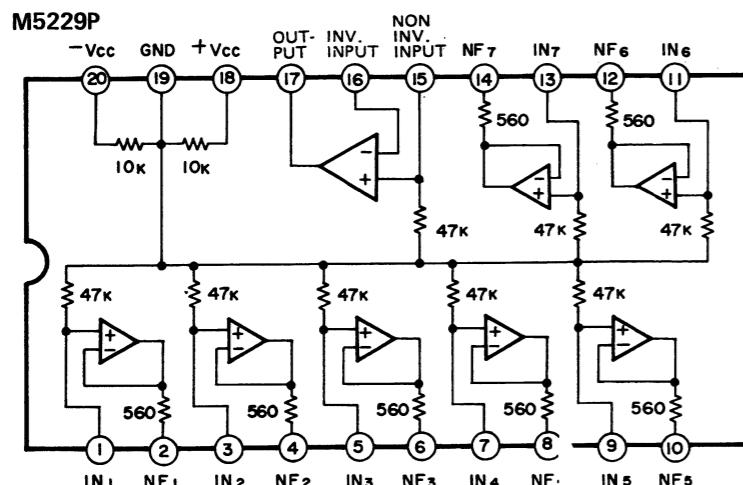
- **BLOCK DIAGRAM (GX-770)**



• BLOCK DIAGRAM (BX-770)



• IC BLOCK DIAGRAM (GX-770·BX-770)

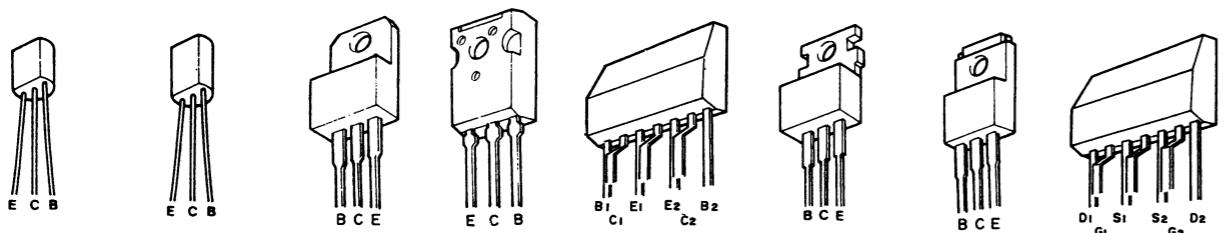


CONTROL INPUTS				"ON" CHANNEL
L	L	L	L	0
L	L	H	L	1
L	L	H	H	2
L	L	H	H	3
L	H	L	L	4
L	H	L	H	5
L	H	H	L	6
L	H	H	H	7
H	*	*	*	NOTE

* Don't Care

Practical Service Figure (GX-770)

Total harmonic distortion:	Less than 0.01%
Residual noise:	Less than 30 μ V
Channel separation:	More than 50 dB
Graphic equalizer response:	± 12 dB



2SA1015	2SA1020	2SB688	2SB1067	2SC3381	2SD880	2
2SC1815	2SA1124	2SD718				2
2SC945	2SC2632					
2SC2001	2SC2655					
2SD1302						

NOTES:

- 1) The voltage is the reference value measured with a tester (20 k-ohms/V DC) when there are no signals.
- 2) Resistors with no designation have a rated power of 1/8W and a tolerance of $\pm 5\%$.
- 3) Capacitors with no designation have a dielectric strength of less than 50WV.
- 4) The only capacitor tolerance indicated are $\pm 5\%$ (J) and $\pm 10\%$ (K).

5) Ceramic capacitor symbols:

- ||— For temperature compensation (SL)
- ||Y High dielectric constant system (YY)
- ||— High dielectric constant system (YW, YP, YZ)
- ||— Semiconductor ceramic
- ◎||— For temperature compensation (SH)

6) Explanation of symbols

- (M) Mylar capacitor
- (A) Aluminum solid capacitor
- (PP) Polypropylene film capacitor
- (BP) Bi-polarized capacitor
- (L) Low-leakage capacitor
- (T) Tantalum capacitor
- (S) Styrol capacitor
-  Printed resistor
-  Fuse resistor

 Safety component symbol

 **Safety component symbol**
This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications.

to conform to special safety specifications.
Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

- This schematic diagram is subject to change without notice in the interests of improved performance.

MEMO ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

EXPLODED VIEW (GX-770)

1 2 3 4 5 6 7

Ref. No.	Part No.	Description
A	87-262-094-21	V + 3 - 6 [RED]
B	87-356-095-21	VT, + 3 - 8 [RED]
C	87-081-785-01	VTT ₂ + 3 - 8
D	87-513-094-21	VFT ₂ + 3 - 6
E	87-348-095-01	UT ₂ + 3 - 8 [BLACK]

A

B

C

D

E

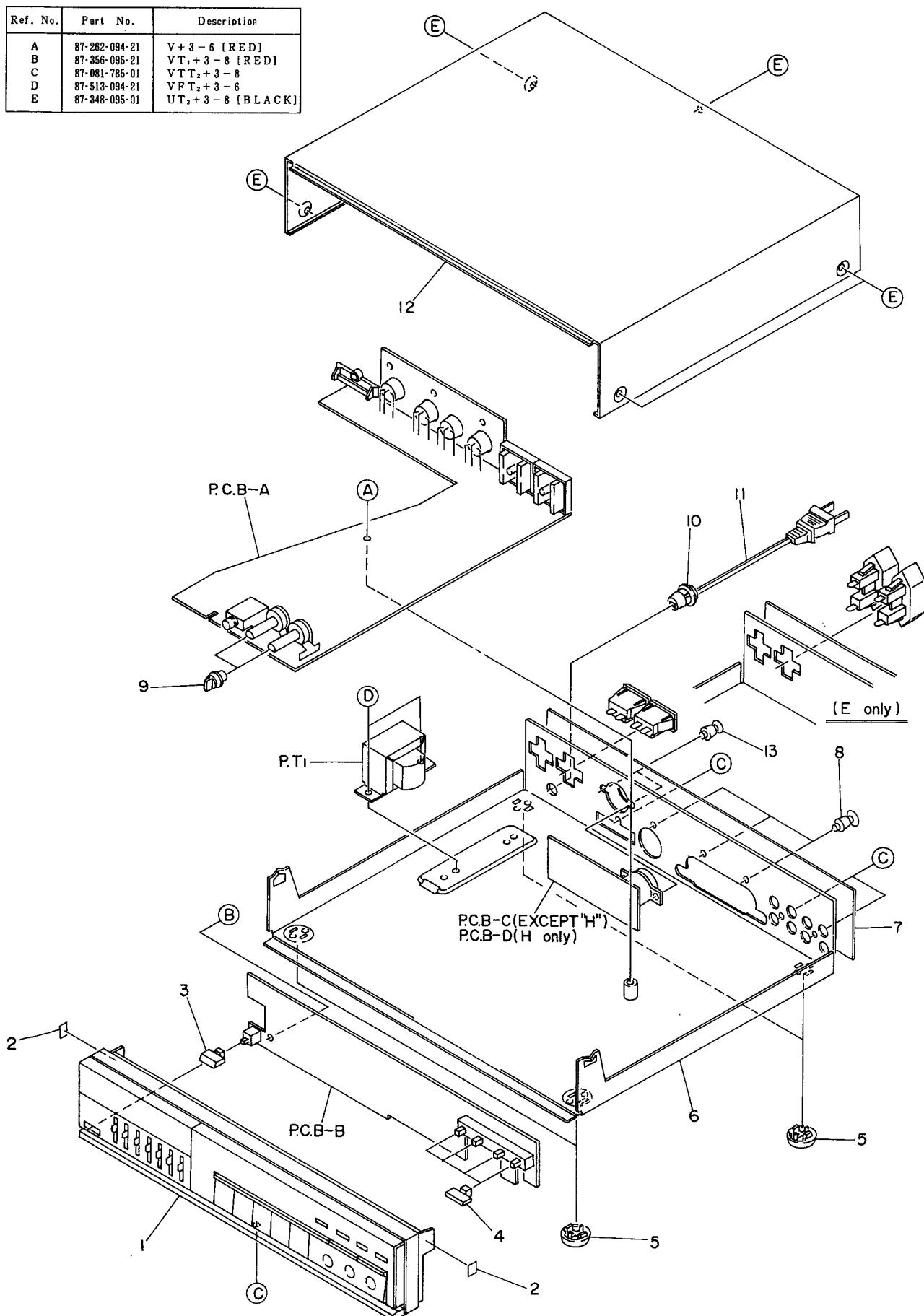
F

G

H

I

J



MECHANICAL PARTS LIST (GX-770)

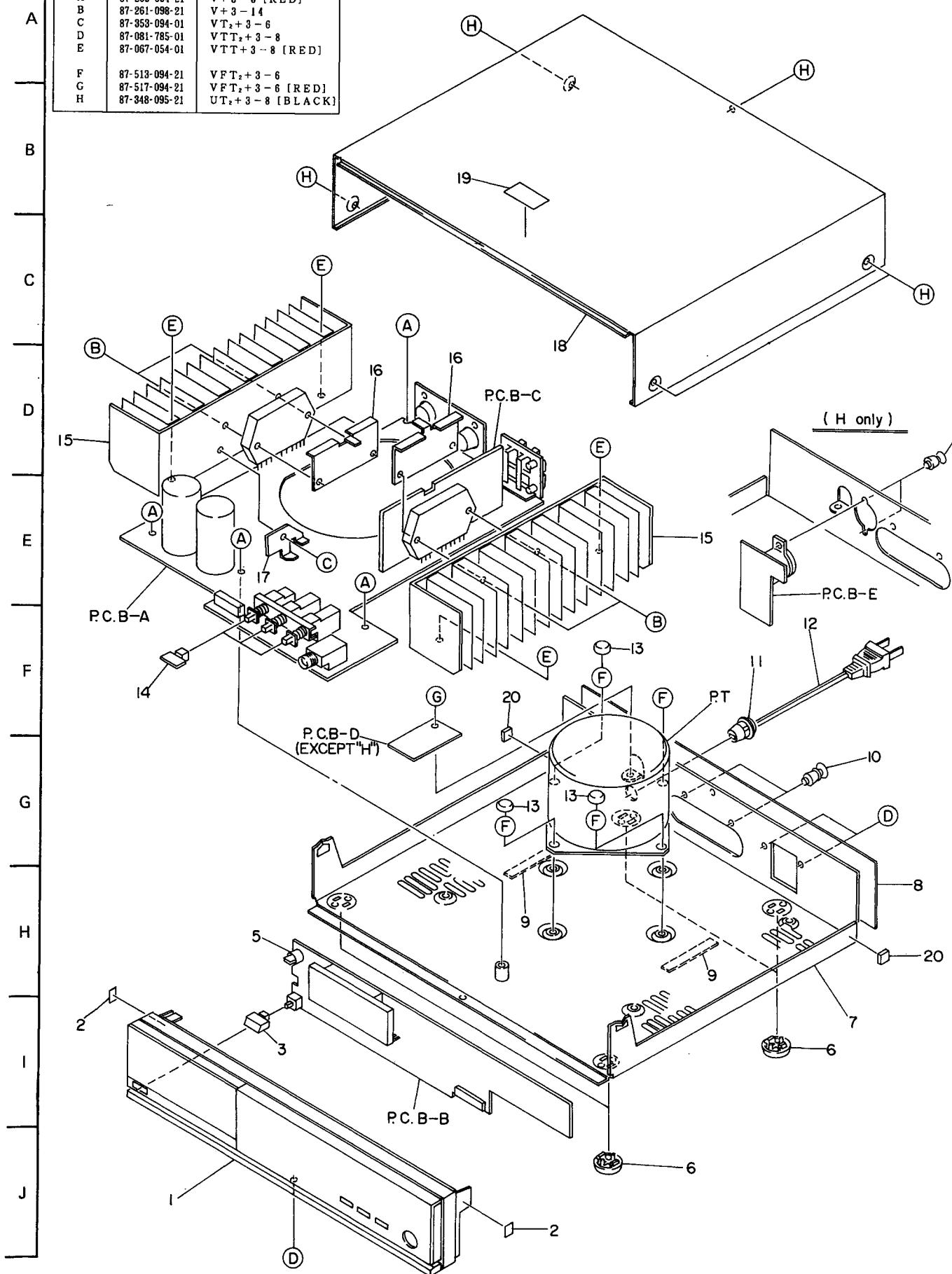
- *-mark in this part list shows exclusive part.
- *-mark means less required items availabilities may be limited.
- No availability part is marked with — in Part No. list.

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	1	★81-750-021	FRONT CABINET CH (B) Ass'y		*	1
	2	—	SHEET 14-6-0.3		2	
	3	★84-714-013	BUTTON, POWER	DX-770	1	
	4	★81-748-010	PUSH-BUTTON T		4	
	5	★87-055-057	FOOT B		4	
	6	—	AMP. CHASSIS Ass'y		1	
	7	—	JACK PLATE		1	
	8	★87-084-077	NYLON RIVET 3.5-5.5		3	
	9	81-752-014	KNOB	MX-550	2	
	10	★87-085-184	CORD BUSHING (H, U only)		1	
		★87-085-185	CORD BUSHING (E, K, Z only)		1	
	11	★87-034-992	AC POWER CORD (H only)		1	
		★87-034-929	AC POWER CORD (U only)		1	
		★87-034-877	AC POWER CORD (E, Z only)		1	
		★87-034-708	AC POWER CORD (K only)		1	
	12	★81-748-020	STEEL CABINET T		1	
	13	★87-085-090	NYLON RIVET 3-6.5 (H only)		2	

EXPLODED VIEW (BX-770)

1 2 3 4 5 6 7

Ref. No.	Part No.	Description
A	87-269-094-21	V+3-6 [RED]
B	87-261-098-21	V+3-14
C	87-353-094-01	VTz+3-6
D	87-081-785-01	VTTz+3-8
E	87-067-054-01	VTTz+3-8 [RED]
F	87-513-094-21	VFTz+3-6
G	87-517-094-21	VFTz+3-6 [RED]
H	87-348-095-21	UTz+3-8 [BLACK]



MECHANICAL PARTS LIST (BX-770)

- *-mark in this part list shows exclusive part.
- *-mark means less required items availabilities may be limited.
- No availability part is worked with — in Part No. list.

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	1	★81-751-022	FRONT CABINET PH (B) Ass'y		*	1
	2	—	SHEET 14-6-0.3		2	
	3	★81-714-013	BUTTON POWER	DX-770	1	
	4	★87-085-090	NYLON RIVET 3-6.5 (H only)		2	
	5	—	COLLAR LED		1	
	6	★87-055-057	FOOT B		4	
	7	—	AMP. CHASSIS Ass'y		1	
	8	—	JACK PLATE		1	
	9	—	SHEET IC		2	
	10	★87-085-102	NYLON RIVET 3.5-5.5		2	
	11	★87-085-184	CORD BUSHING (H, U only)		1	
		★87-085-185	CORD BUSHING (E, K, Z only)		1	
	12	★87-034-992	AC POWER CORD (H only)		1	
		★87-034-578	AC POWER CORD (U only)		1	
		★87-034-877	AC POWER CORD (E, Z only)		1	
		★87-034-708	AC POWER CORD (K only)		1	
	13	★82-752-206	COVER, NUT	MX-550	3	
	14	★81-748-010	PUSH-BUTTON T		3	
	15	—	HEAT SINK Ass'y		2	
	16	—	PLATE NUT		2	
	17	—	HOLDER, CIRCUIT BOARD		1	
	18	★81-751-010	STEEL CABINET P		*	1
	19	★87-057-717	TEMP LABEL H		1	
	20	—	G CUSHION		2	

■ ACCESSORIES/PACKAGE LIST

GX-770

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	1	★81-750-907	INSTRUCTION BOOKLET	※	1	

BX-770

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	1	★81-751-907	INSTRUCTION BOOKLET	※	1	
	2	★87-034-718	8 P D I N CORD CW-258 ESK		1	

AIWA Co., Ltd. Tokyo Japan